

they amount to five-sixths of the whole. The *Clupeidæ* are an exception, in which all the species are apparently new.

All the species described, belonging to the three families above mentioned, in which there are so many new, viz. the *Siluridæ*, the *Cyprinidæ*, and *Salmonidæ*, are from South America, and the Falkland Islands, excepting one from New Zealand.

Of the remaining fresh-water fishes in the collection, three out of five are presumed to be new. One of these is a species of *Perca*, from the Santa Cruz river, in South Patagonia; the second is a species of *Dules*, from the river Matavai, in Tahiti; the third a species of *Atherina*, from Valparaiso. Perhaps, however, this last is not strictly an inland species.

The entire number of fresh-water species in the collection is twenty-three, and the entire number of new ones amongst these is eighteen. The large proportion of these latter is a circumstance in confirmation of a remark which Cuvier has somewhere made, that the fresh-water fishes of foreign countries are much less known and understood than those found on the coasts. It may serve also as a hint to future travellers.

The seven new genera in the collection belong—one to the *Sciænidae*, from the Galapagos Archipelago;—one to the *Scombridae*, from North Patagonia;—three to the *Blennidae*, whereof one is from the Archipelago of Chiloe, the second from the Falkland Islands, and the third from New Zealand;—one to the *Cyprinidae*, embracing three species, from South Patagonia, Tierra del Fuego, and New Zealand; and, lastly, one to the *Salmonidae*, embracing two species from the Falkland Islands and Tierra del Fuego respectively.

It has been already mentioned, that all the species obtained by Mr. Darwin in the Galapagos Archipelago have been preserved. As they are likewise all new, and those islands appear to have been scarcely visited by any naturalist previously, it may be interesting to enumerate the several genera to which they belong, and the number of species in each genus respectively.

SERRANUS 3 species.	Fam. PERCIDÆ.	
PRIONOTUS 1 "	— TRIGLIDÆ.	
SCORPENA 1 "	— SCORPÆNIDÆ.	
PRIONODES <i>N.G.</i> 1 "		
PRISTIPOMA 1 "	— SCIENIDÆ.	} ACANTHOPTERYGII.
LATILUS 1 "		
CHRYSOPHRYS 1 "	— SPARIDÆ.	
GOBIOUS 1 "	— GOBIDÆ.	
COSSYPHUS 1 "	— LABRIDÆ.	
GOBIESOX 1 "	— CYCLOPTERIDÆ.	} MALACOPTERYGII.
MURÆNA 1 "	— ANGUILLIDÆ.	
TETRODON 2 "	— TETRODONTIDÆ.	PLECTOGNATHI.

In making the foregoing estimates, as regards the number of new species brought home by Mr. Darwin, I have been guided almost entirely by my own judgment. The difficulty, however, of ascertaining, in a miscellaneous collection of this nature, brought from various localities, what *are* really new to science, is very great; and this difficulty is much increased, where an author is situate apart from large public museums to which he might have recourse for comparison. Possibly, therefore, some of those described as new in the following work, may not be so in reality; and, in one instance, as mentioned in the Appendix, this is known to be the case. My excuse, however, must rest upon what has been just stated. It is hoped that caution has been generally shown, at least in regard to specimens not in a good state of preservation; and, in several such cases, in which an accurate description was hardly practicable,—though they could not be referred to any known species,—they are not positively declared new, nor any names imposed upon them whatever.

I have, of course, consulted throughout the invaluable volumes of Cuvier and Valenciennes, so far as they have yet advanced in the subject; and in them it will be found that a few species, brought by Mr. Darwin from South America, and still but little known, had nevertheless been previously obtained from the same country by M. Gay. The zoological atlases of the three great French voyages by Freycinet, Duperrey and D'Urville have been also carefully looked through; and, in regard particularly to the fish of South America, the works of Humboldt, Spix and Agassiz, and the more recent one, now in course of publication, by M. D'Orbigny.

There is an equal difficulty felt by every naturalist at the present day, in distinguishing species from varieties. And in the case of Fish, residing in a peculiar element, and so much removed from our observation,—we are almost at a loss to know, at present, to what extent their characters may be modified by local and accidental causes, or how far we may trust a different geographical position for giving permanence and value to a slight modification of form different from what occurs in the species of our own seas. Still less easy is it to determine the true importance of characters, in instances in which it is only permitted to see a single specimen of the kind, or, at most, very few individuals.

Many mistakes, therefore, are liable to occur, in a work of this nature, arising from the above sources. The only way to prevent their creating any permanent confusion in the science, is to describe all species of which the least doubt is entertained, in such detail, and with such accuracy, that they may not fail of being recognized by any observer, to whom they may occur a second time. They will not then *continue to hold a false position* in the system, as *spurious*